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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of election in the reply filed on 3/11/2008 is acknowledged. The traversal is on the ground(s) that 37 CFR 1.146 allows issuance of an election of species requirement in the first action on an application only.

This is not found persuasive wherein 37 CFR 1.146 states:

In the first action on an application containing a generic claim to a generic invention(genus) and claims to more than one patentably distinct species embraced thereby, the examiner may require the applicant in the reply to that action to elect a species of his or her invention to which his or her claim will be restricted if no claim to the genus is found to be allowable. However, if such application contains claims directed to more than a reasonable number of species, the examiner may require restriction of the claims to not more than a reasonable number of species before taking further action in the application.

Examiner respectfully submits that 37 CFR 1.146 does not explicitly state that a requirement for election may only be issued in a first action.

The requirement is still deemed proper.

The Applicant is reminded that upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 2/07/2008, 3/28/2008 were filed after the mailing date of the Office Action on 08/02/2007. The submission is

in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Arguments

3. Applicant's arguments with respect to claims 1,16,17,32,33 and their dependants have been considered but are moot in view of the new ground(s) of rejection. The Examiner thanks the Applicant for the timely responses filed 11/02/2007, 03/11/2008, and further for the two IDS filings which have been received as stated above.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. **Claims 1-2,5-7,16-18,21-23,32,33** rejected under 35 U.S.C. 103(a) as being unpatentable over

- i. Loui (US 6,636,648 B2) in view of
- ii. Matsushima (US 7,034,878 B2).

Regarding **claim 1**, Loui discloses an image processing device (fig. 1) for selecting an image (col. 4 lines 59-65, col. 6 line 31-col. 7 line 6 – an image not detected as a dud is a selected image) and transferring the selected image to an image output section that outputs the selected image (col. 4 lines 28-31, col. 7 lines 23-27) according to image data generated by an image generating device and image generation record information associated with the image data (col. 10 lines 21-24, 27-

37), the image generation record information including at least operation information of the image generating device at the time that the image data is generated (fig. 6, col. 10 lines 24-27, 48-63), the image processing device comprising: an analyzer configured to analyze both the image data and the image generation record information associated with the image data to determine an image quality parameter relating to quality of an image represented by the image data S106 (fig. 6 - the overall image quality parameter includes detecting duplicate images using the time when the image was taken); and a selector configured to perform, on the basis of the image quality parameter, an output target decision regarding whether to select the image data as an output target S112 (fig. 6, col. 10 line 64-col. 11 line 40).

Loui does not expressly disclose wherein the analyzer determines the image quality parameter using a weight distribution that is determined according to the image generation record information, wherein pixels of the image are weighted by the weight distribution.

Matsushima discloses an image processing device (fig. 1) wherein the analyzer determines the image quality parameter using a weight distribution (fig. 3, 4, 5, col. 7 line 64-col. 10 line 51, col. 10 lines 18-20) that is determined according to the image generation record information 11 (figs. 1-10, col. 7 line 64-col. 9 line 62, col. 6 lines 16-29, col. 10 lines 13-20) wherein pixels of the image are weighted by the weight distribution 5-4 (fig. 10, col. 10 lines 17-20 – pixels of the image being image data in areas 1-3). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention when obtaining an image metric in the image processing

device taught by Loui to further employ a weighting schema with certain distribution applied to the image data as taught by Matsushima and further to include the image generation record information taught by Matsushima with the image generation record information as taught by Loui in order to give greater attention to image areas of greater importance (col. 3 lines 36-41).

Regarding **claim 2**, Loui as viewed discloses (refer to Matsushima) an image processing device according to claim 1 wherein the weight distribution is determined based on subject location information (figs. 4-6, 8, 10 - areas of importance indicating intentions of the user being the subject location) which is included in the image generation record information to determine the image quality parameter.

Regarding **claim 5**, Loui discloses an image processing device according to claim 1 wherein the analyzer determines a first characteristic value of the quality characteristic parameter that indicates a characteristic relating to sharpness of the image (col. 6 lines 41-52), and the selector performs the output target decision on the basis of the first characteristic value (col. 6 lines 38-44).

Regarding **claim 6**, Loui discloses an image processing device according to claim 5 wherein the analyzer calculates edge amount at each pixel position in the image, and determines the first characteristic value using the edge amount (col. 6 line

50 – image intensity histogram of the edge profile incorporates edge amount of each pixel of the image).

Regarding **claim 7**, Loui as viewed discloses (refer to the rejection of claim 2) an image processing device according to claim 5 wherein the image generation record information includes subject location information for the image, and the analyzer determines the first characteristic value using the subject location information.

Regarding **claim 16**, Loui discloses an image output device (fig. 1) for outputting an image (col. 4 lines 59-65, col. 6 line 31-col. 7 line 6 – an image not detected as a dud is a selected image) according to image data generated by an image generating device and image generation record information associated with the image data (col. 10 lines 21-24, 27-37), the image generation record information including at least operation information of the image generating device at the time that the image data is generated (fig. 6, col. 10 lines 24-27, 48-63), the image output device comprises: an analyzer configured to analyze both the image data and the image generation record information associated with the image data to determine an image quality parameter relating to quality of an image represented by the image data S106 (fig. 6 - the overall image quality parameter includes detecting duplicate images using the time when the image was taken); a selector configured to perform, on the basis of the image quality parameter, an output target decision regarding whether to select the image data as an output target S112 (fig. 6, col. 10 line 64-col. 11 line 40); and an output section

configured to output an image using the image data that has been selected as the output target by the selector (col. 4 lines 28-31, col. 7 lines 23-27).

Loui does not expressly disclose wherein the analyzer determines the image quality parameter using a weight distribution that is determined according to the image generation record information, wherein pixels of the image are weighted by the weight distribution.

Matsushima discloses an image processing method (fig. 1) wherein the analyzer determines the image quality parameter using a weight distribution (fig. 3, 4, 5, col. 7 line 64-col. 10 line 51, col. 10 lines 18-20) that is determined according to the image generation record information 11 (figs. 1-10, col. 7 line 64-col. 9 line 62, col. 6 lines 16-29, col. 10 lines 13-20) wherein pixels of the image are weighted by the weight distribution 5-4 (fig. 10, col. 10 lines 17-20 – pixels of the image being image data in areas 1-3). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention when obtaining an image metric in the image processing device taught by Loui to further employ a weighting schema with certain distribution applied to the image data as taught by Matsushima and further to include the image generation record information taught by Matsushima with the image generation record information as taught by Loui in order to give greater attention to image areas of greater importance (col. 3 lines 36-41).

Regarding **claim 17**, Loui as viewed (refer to the rejection of claim 1) discloses a method of selecting (Loui fig. 2, 6) an image and transferring the selected image to an

image output section that outputs the selected image according to image data generated by an image generating device and image generation record information associated with the image data, the image generation record information including at least operation information of the image generating device at the time that the image data is generated, the method comprising the steps of: (a) analyzing both the image data and the image generation record information associated with the image data to determine an image quality parameter relating to quality of an image represented by the image data; and (b) performing, on the basis of the image quality parameter, an output target decision regarding whether to select the image data as an output target, wherein the step (a) includes determining the image quality parameter using a weight distribution that is determined according to the image generation record information, wherein pixels of the image are weighted by the weight distribution.

Regarding **claim 18**, Loui as viewed discloses (refer to the rejection of claim 2) a method according to claim 17 wherein the weight distribution is determined based on subject location information which is included in the image generation record information.

Regarding **claim 21**, Loui discloses (refer to the rejection of claim 5) a method according to claim 17 wherein the step (a) includes determining a first characteristic value of the quality characteristic parameter that indicates a characteristic relating to

sharpness of the image, and the step (b) includes performing the output target decision on the basis of the first characteristic value.

Regarding **claim 22**, Loui discloses (refer to the rejection of claim 6) a method according to claim 21 wherein the step (a) includes calculating edge amount at each pixel position in the image, and determining the first characteristic value using the edge amount.

Regarding **claim 23**, Loui as viewed discloses (refer to the rejection of claim 7) a method according to claim 21 wherein the image generation record information includes subject location information for the image, and the step (a) includes determining the first characteristic value using the subject location information.

Regarding **claim 32**, Loui as viewed (refer to the rejection of claim 16) discloses a method of outputting (Loui fig. 2, 6) an image according to image data generated by an image generating device and image generation record information associated with the image data, the image generation record information including at least operation information of the image generating device at the time that the image data is generated, the method comprising the steps of: (a) analyzing both the image data and the image generation record information associated with the image data to determine an image quality parameter relating to quality of an image represented by the image data; (b) performing, on the basis of the image quality parameter, an output target decision

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regarding whether to select the image data as an output target; and (c) outputting an image using the image data that has been selected as the output target by the selector, wherein the step (a) includes determining the image quality parameter using a weight distribution that is determined according to the image generation record information, wherein pixels of the image are weighted by the weight distribution.

Regarding **claim 33**, Loui as viewed (refer to the rejection of claim 16) discloses (refer to Loui) a computer program product (fig. 1, col. 4 lines 2-5, 15-31, col. 11 lines 56-67) comprising: a computer-readable storage medium 22,24,26,27,30; and a computer program stored on the computer-readable storage medium (col. 4 lines 15-31), the computer program including; a first program for causing a computer to analyze both the image data and the image generation record information associated with the image data to determine an image quality parameter relating to quality of an image represented by the image data; and a second program for causing the computer to perform, on the basis of the image quality parameter, an output target decision regarding whether to select the image data as an output target, wherein the first program includes a program for causing a computer to determine the image quality parameter using a weight distribution that is determined according to the image generation record information, wherein pixels of the image are weighted by the weight distribution.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nishimura (US 6,094,217 A) teaches image metadata comprising subject location (col. 13 lines 43-51, col. 14 lines 54-68).

Kuwata (US 6,392,759 B1) teaches calculating sharpness of a subject mainly.

Cheatle (US 7,043,059 B2) teaches selecting by a quality factor representing mainly subject area(s) of interest.

Sannoh (US 7,298,412 B2) teaches image quality by edge calculation on facial features.]

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL SAUNDERS whose telephone number is (571)270-3319. The examiner can normally be reached on Mon-Thur 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on 571.272.7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/PS/
6/6/2008

/Ngoc-Yen T. VU/
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